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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,048	12/04/2001	Lai King Tee	440402000500	9623

25224 7590 07/22/2004

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EXAMINER	
NGUYEN, KHAI MINH	

ART UNIT	PAPER NUMBER
2684	11

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/006,048	TEE, LAI KING	
	Examiner	Art Unit	
	Khai M Nguyen	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *32-35, 39* is/are allowed.

6)☒ Claim(s) *1-5,7,13,16-19, 20-24, 26 and 36-38* is/are rejected.

7)☒ Claim(s) *6,8-12,14,15,25 and 27-31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4-5, 7-10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5,7, 20-24, 26 are rejected under 35 U.S.C. 102(e) as being anticipated by LeBlanc (Patent-6236365).

Regarding claim 1, LeBlanc teaches a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS (fig.37, abstract), the system capable of performing a rescue procedure for rescuing a MS having a connection with the network that has become a potentially failing connection, a method for adjusting pilot signal strength add and drop thresholds T_ADD_R and T_DROP_R used by the MS having the potentially failing connection in determining an updated active set of pilots for use by the MS in the rescue procedure (col.25, line 50 to col.26, line 26), the method comprising:

incrementally lowering T_ADD_R and T_DROP_R by an amount STEP_dec_thres at one or more specific time instants t.sub.N, N=1, 2, . . . M during the

rescue procedure, each time instant separated by a time Td (fig.7, col.34, lines 4-18, col.55, line 65 to col.56, line 24).

Regarding claim 2, LeBlanc teaches the method as recited in claim 1, further including lowering T_ADD_R and T_DROP_R in accordance with pilot signal strengths (Ec/Io values) measured at the MS (col.55, lines 45-57, col.28 line 53 to col.29, line 13).

Regarding claim 3, LeBlanc teaches the method as recited in claim 1, further including lowering T_ADD_R and T_DROP_R by not more than a total amount MAX_dec_thres during the rescue procedure (col.55, lines 45-57).

Regarding claim 4, LeBlanc teaches the method as recited in claim 1, further including incrementally adjusting Td between time instants T.sub.N (fig.12, col.36, lines 4-8).

Regarding claim 5, LeBlanc teaches the method as recited in claim 2, further including increasing Td between one or more time instants T.sub.N if a combined pilot Ec/Io for the updated active set of the MS is higher than a predetermined desired combined pilot Ec/Io (col.21, line 37 to col.22, line 11).

Regarding claim 7, LeBlanc teaches the method as recited in claim 1, further including incrementally adjusting STEP_dec_thres at one or more time instants T.sub.N (col.21, line 37 to col.22, line 11).

Regarding claim 20, LeBlanc teaches a mobile station (MS) for communicating with a network and for assisting in performing a rescue procedure when the MS has a

connection with the network that has become a potentially failing connection (fig.17, col.33, lines 16-21), the MS comprising:

a processor programmed for incrementally lowering pilot signal strength add and drop thresholds T_ADD_R and T_DROP_R by an amount STEP_dec_thres at one or more specific time instants t.sub.N, N=1, 2, . . . M during the rescue procedure, each time instant separated by a time Td (fig.7, col.34, lines 4-18, col.55, line 65 to col.56, line 24);

wherein T_ADD_R and T_DROP_R are used by the MS for determining an updated active set of pilots for use in the rescue procedure (col.21, lines 19-36).

Regarding claim 21, LeBlanc teaches the MS as recited in claim 20, the processor further programmed for lowering T_ADD_R and T_DROP_R in accordance with pilot signal strengths (Ec/Io values) measured at the MS.

Regarding claim 22, LeBlanc teaches the MS as recited in claim 20, the processor further programmed for lowering T_ADD_R and T_DROP_R by not more than an total amount MAX_dec_thres during the rescue procedure (col.55, lines 45-57).

Regarding claim 23, LeBlanc teaches the MS as recited in claim 20, the processor further programmed for incrementally adjusting Td between time instants T.sub.N (fig.12, col.36, lines 4-8).

Regarding claim 24, LeBlanc teaches the MS as recited in claim 21, the processor further programmed for increasing Td between one or more time instants

T.sub.N if a combined pilot Ec/Io for the updated active set of the MS is higher than a predetermined desired combined pilot Ec/Io (col.21, line 37 to col.22, line 11).

Regarding claim 26, LeBlanc teaches the MS as recited in claim 20, the processor further programmed for incrementally adjusting STEP_dec_thres at one or more time instants T.sub.N (col.21, line 37 to col.22, line 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13, 16-19, 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeBlanc (Patent-6236365) in view of Blakeney, II (Patent-5640414).

Regarding claim 13, LeBlanc teaches the method as recited in claim 1, the method for additionally determining an updated active set of pilots for use by the network in the rescue procedure (col.52, line 66 to col.53, line 7).

LeBlanc fails to disclose a transmitting a uniform energy signal from the MS having the potentially failing connection; and for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength

of the uniform energy signal, and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold. However, Blakeney teaches a transmitting a uniform energy signal from the MS having the potentially failing connection (fig.1, fig.2, col.3, line 61 to col.4, line 24), and for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength of the uniform energy signal, and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold (fig.1, fig.2, col.3, line 61 to col.4, line 24). Therefore, it would have been obvious to of ordinary skill the art at the time the invention was made to use a transmitting a uniform energy signal from the MS having the potentially failing connection; and for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength of the uniform energy signal, and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold as taught by Blakeney with LeBlanc in order to provide a cellular communication system an improvement in call handoff in communications of a mobile station between base station so as to provide greater service reliability and quality.

Regarding claim 16, LeBlanc teaches the method as recited in claim 1, the method for additionally determining an updated active set of pilots for use by the network in the rescue procedure (col.52, line 66 to col.53, line 7),

LeBlanc fails to disclose the method for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, adding the BS to the updated active set used by the network in accordance with a location of the MS and network planning information. However, Blakeney teaches the method for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, adding the BS to the updated active set used by the network in accordance with a location of the MS and network planning information (fig.1, fig.2, col.3, line 61 to col.4, line 24). Therefore, it would have been obvious to of ordinary skill the art at the time the invention was made to use the method for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, adding the BS to the updated active set used by the network in accordance with a location of the MS and network planning information as taught by Blakeney with LeBlanc in order to provide a cellular communication system an improvement in call handoff in communications of a mobile station between base station so as to provide greater service reliability and quality.

Regarding claim 17, LeBlanc teaches the method as recited in claim 1, the MS having the potentially failing connection capable of transmitting a uniform energy signal, the method for additionally determining an updated active set of pilots for use by the network in the rescue procedure (col.52, line 66 to col.53, line 7).

LeBlanc fails to disclose the method for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength

of the uniform energy signal, and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold. However, Blakeney teaches the method for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength of the uniform energy signal (fig.1, fig.2, col.3, line 61 to col.4, line 24), and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold (fig.1, fig.2, col.3, line 61 to col.4, line 24). Therefore, it would have been obvious to of ordinary skill the art at the time the invention was made to use for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength of the uniform energy signal, and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold as taught by Blakeney with LeBlanc in order to provide a cellular communication system an improvement in call handoff in communications of a mobile station between base station so as to provide greater service reliability and quality.

Regarding claim 18, LeBlanc teaches the method as recited in claim 17, wherein the uniform energy signal is a reverse link pilot signal (col.20, line 58 to col.21, line 18).

Regarding claim 19, LeBlanc teaches the method as recited in claim 17, wherein the uniform energy signal is a data signal at a predetermined data rate with predetermined data (col.10, lines 48-59).

Regarding claim 36, LeBlanc teaches a network for communicating with a mobile station (MS) and for assisting in performing a rescue procedure when the MS has a connection with the network that has become a potentially failing connection, the MS having the potentially failing connection capable of transmitting a uniform energy signal (col.52, line 66 to col.53, line 7)

LeBlanc fails to disclose a network for one or more BS sectors in a neighborhood of the MS for communicating with the MS, each BS sector including a processor programmed for receiving and measuring a strength of the uniform energy signal and adding the BS sector to an updated active set used by the network in performing the rescue procedure if the strength of the uniform energy signal is above a predetermined threshold. However, Blakeney teaches a network for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength of the uniform energy signal (fig.1, fig.2, col.3, line 61 to col.4, line 24), and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold (fig.1, fig.2, col.3, line 61 to col.4, line 24). Therefore, it would have been obvious to of ordinary skill the art at the time the invention was made to use for each of one or more BSs in a neighborhood of the MS having the potentially failing connection, measuring a strength of the uniform energy signal, and adding the BS to the updated active set used by the network if the strength of the uniform energy signal for that BS is above a predetermined threshold as taught by Blakeney with LeBlanc in order to provide a cellular communication system an

improvement in call handoff in communications of a mobile station between base station so as to provide greater service reliability and quality.

Regarding claim 37, LeBlanc teaches the network as recited in claim 36, wherein the uniform energy signal is a reverse link pilot signal (col.20, line 58 to col.21, line 18).

Regarding claim 38, LeBlanc teaches the network as recited in claim 36, wherein the uniform energy signal is a data signal at a predetermined data rate with predetermined data (col.10, line 48-59).

Allowable Subject Matter

Claims 6,8-12, 14-15, 25, 27-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 6, 8-12, 14-15, 25 and 27-31, the following is an examiner's statement of reasons for allowance: Prior art teaches a communications system for determining an updated active set of pilots used in a rescue procedure for rescuing a mobile station (MS) having a connection with a network that has become a potentially failing connection, the system comprising: a MS, the MS comprising a processor programmed for incrementally lowering pilot signal strength add and drop thresholds T_ADD_R and T_DROP_R by an amount STEP_dec_thres at one or more specific time instants t.sub.N, N=1, 2, . . . M during the rescue procedure, each time instant

separated by a time Td, wherein T_ADD_R and T_DROP_R are used by the MS for determining the updated active set of MS pilots for use in the rescue procedure. However, the prior art fails to teaches transmitting a uniform energy signal during a time when the MS is having the potentially failing connection; and a network communicatively coupled to the MS, the network including one or more pilots in a neighborhood of the MS for communicating with the MS, each pilot including a processor programmed for receiving and measuring a strength of the uniform energy signal and adding the pilot to the updated active set used by the network in performing the rescue procedure if the strength of the uniform energy signal is above a predetermined threshold.

Claims 32-35, 39 are allowed.

Regarding claims 32-35 and 39, the following is an examiner's statement of reasons for allowance: Prior art teaches in a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS, the system capable of performing a rescue procedure for rescuing a MS having a connection with the network that has become a potentially failing connection, a method for adjusting pilot signal strength add and drop thresholds T_ADD_R and T_DROP_R used by the MS having the potentially failing connection in determining an updated active set of pilots for use by the MS in the rescue procedure, the method comprising: at one or more specific time instants t.sub.N, N=1, 2, . . . M during the rescue procedure, each time instant separated by a time Td, computing temporary rescue add and drop

threshold values by lowering present values for T_ADD_R and T_DROP_R by an amount STEP_dec_thres. However, the prior art fails to teaches a computing add and drop threshold algorithms specified in Sections 2.6.6.2.5.2 and 2.6.6.2.3 of the IS-2000-5 Standard, respectively, after replacing static add and drop threshold values in those algorithms with the temporary rescue add and drop threshold values, to generate new values for T_ADD_R and T_DROP_R, respectively.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M Nguyen whose telephone number is 703.305.3906. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703.308.7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khai Nguyen
Au : 2684

6/25/2004

NAY MAUNG
SUPERVISORY PATENT EXAMINER